

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 122)

FOIL the expressions shown below:

1. $(3x + 9)(2x - 2)$

$$\begin{aligned} & (3)(2)x^2 + (3)(-2)x + (9)(2)x + (9)(-2) \\ & (6)x^2 + (-6)x + (18)x + (-18) \\ & 6x^2 + 12x - 18 \end{aligned}$$

2. $(5x + 8)(2x - 8)$

$$\begin{aligned} & (5)(2)x^2 + (5)(-8)x + (8)(2)x + (8)(-8) \\ & (10)x^2 + (-40)x + (16)x + (-64) \\ & 10x^2 - 24x - 64 \end{aligned}$$

3. $(9x - 5)(-5x + 3)$

$$\begin{aligned} & (9)(-5)x^2 + (9)(3)x + (-5)(-5)x + (-5)(3) \\ & (-45)x^2 + (27)x + (25)x + (-15) \\ & -45x^2 + 52x - 15 \end{aligned}$$

4. $(-4x - 3)(3x - 6)$

$$\begin{aligned} & (-4)(3)x^2 + (-4)(-6)x + (-3)(3)x + (-3)(-6) \\ & (-12)x^2 + (24)x + (-9)x + (18) \\ & -12x^2 + 15x + 18 \end{aligned}$$

5. $(2x + 3)(-5x - 4)$

$$\begin{aligned} & (2)(-5)x^2 + (2)(-4)x + (3)(-5)x + (3)(-4) \\ & (-10)x^2 + (-8)x + (-15)x + (-12) \\ & -10x^2 - 23x - 12 \end{aligned}$$

FOIL the expressions shown below:

6. $(-4x - 5)(-7x + 6)$

$$\begin{aligned} &(-4)(-7)x^2 + (-4)(6)x + (-5)(-7)x + (-5)(6) \\ &(28)x^2 + (-24)x + (35)x + (-30) \\ &28x^2 + 11x - 30 \end{aligned}$$

7. $(-5x + 6)(2x + 9)$

$$\begin{aligned} &(-5)(2)x^2 + (-5)(9)x + (6)(2)x + (6)(9) \\ &(-10)x^2 + (-45)x + (12)x + (54) \\ &-10x^2 - 33x + 54 \end{aligned}$$

8. $(-8x + 5)(-3x - 7)$

$$\begin{aligned} &(-8)(-3)x^2 + (-8)(-7)x + (5)(-3)x + (5)(-7) \\ &(24)x^2 + (56)x + (-15)x + (-35) \\ &24x^2 + 41x - 35 \end{aligned}$$

9. $(2x + 7)(-7x - 2)$

$$\begin{aligned} &(2)(-7)x^2 + (2)(-2)x + (7)(-7)x + (7)(-2) \\ &(-14)x^2 + (-4)x + (-49)x + (-14) \\ &-14x^2 - 53x - 14 \end{aligned}$$

10. $(-2x - 7)(-4x + 6)$

$$\begin{aligned} &(-2)(-4)x^2 + (-2)(6)x + (-7)(-4)x + (-7)(6) \\ &(8)x^2 + (-12)x + (28)x + (-42) \\ &8x^2 + 16x - 42 \end{aligned}$$